Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A rotor blade of a wind power plant, comprising a rotor blade connection for connection to a hub of the rotor of a wind power plant and a blade tip disposed at the opposite end of the rotor blade, ~~characterised~~characterized in that at least one electrical conductor ~~(20, 21, 22, 23, 24, 26, 28)~~ is laid over the length of the rotor blade ~~(10)~~, wherein the electrical conductor ~~(20, 21, 22, 23, 24, 26, 28)~~ begins at the rotor blade connection, extends in the longitudinal direction of the rotor blade and back to the rotor blade connection, and that there is provided a detector ~~(16)~~ which detects the electrical resistance of the conductor ~~(20, 21, 22, 23, 24, 26)~~ and that the detector ~~(16)~~ is connected to an evaluation device which evaluates the electrical resistance.

2. (Currently Amended) A rotor blade as set forth in claim 1 ~~characterised~~characterized in that the evaluation device is connected to a control device of the wind power plant and the wind power plant can be shut down if a change in resistance exceeds a predetermined value.

3. (Currently Amended) A rotor blade as set forth in claim 1 ~~or claim 2 characterised~~characterized in that a plurality of electrical conductors ~~(20, 21, 22, 23, 24, 26, 28)~~ is laid from the rotor blade connection in the longitudinal direction of the rotor

blade and back again and that said conductors ~~(20, 21, 22, 23, 24, 26, 28)~~ are connected to the detector ~~(16)~~.

4. (Currently Amended) A rotor blade as set forth in claim 3 ~~characterised~~characterized in that at least one of the electrical conductors ~~(20, 21, 22, 23, 24, 26, 28)~~ extends a predetermined distance in the longitudinal direction of the rotor blade, said distance being shorter than the length of the rotor blade.

5. (Currently Amended) A rotor blade as set forth in claim 3 ~~characterised~~characterized in that at least one of the conductors ~~(20, 21, 22, 23, 24, 26)~~ extends to the rotor blade tip ~~(13)~~.

6. (Currently Amended) A rotor blade as set forth in claim 5 ~~characterised~~characterized in that at least one conductor ~~(28)~~ which is shorter than the rotor blade length is galvanically connected at a predetermined location to the conductor which extends over the rotor blade length.

7. (Currently Amended) A rotor blade as set forth in ~~one of the preceding~~ claims 1 ~~characterised~~characterized in that at least one electrical conductor ~~(20, 21, 22, 23, 24, 26)~~ is fixedly connected to the support structure ~~(34, 36)~~ of the rotor blade ~~(10)~~.

8. (Currently Amended) A rotor blade as set forth in claim 7 ~~characterised~~characterized in that the electrical conductor ~~(20, 21, 22, 23, 24, 26)~~ is enclosed in the support structure ~~(34, 36)~~ of the rotor blade ~~(10)~~.

9. (Currently Amended) A rotor blade as set forth in one of claims 7 ~~and 8 characterised~~characterized in that the electrical conductor ~~(20, 21, 22, 23, 24, 26)~~ is enclosed in a carrier ~~(38)~~ which is connected to but releasable from the support structure ~~(34, 36)~~.

10. (Currently Amended) A rotor blade as set forth in ~~one of~~ claims 7 ~~to 9 characterised~~characterized in that at least one electrical conductor ~~(20, 21, 22, 23, 24, 26, 28)~~ is provided on/in each support structure ~~(34, 36)~~ in the longitudinal direction of the rotor blade.

11. (Currently Amended) A rotor blade as set forth in ~~one of the preceding~~ claims 1 ~~characterised~~characterized in that the electrical conductors ~~(20, 21, 22, 23, 24, 26, 28)~~ contain at least a predetermined ~~aluminium~~aluminum component.

12. (Currently Amended) A rotor blade as set forth in ~~one of the preceding~~ claims 1 ~~characterised~~characterized in that the conductors ~~(20, 21, 22, 23, 24, 26, 28)~~ have a predetermined surface roughness.

13. (Currently Amended) A rotor blade as set forth in ~~one of the preceding~~ claims 1 ~~characterised~~characterized in that the conductors ~~(20, 21, 22, 23, 24, 26, 28)~~ are connected to a plug connector in the region of the rotor blade root ~~(11)~~.

14. (Currently Amended) A process and apparatus for measuring the flexing or change in length of a product, ~~for example~~ namely a rotor blade or a pylon of a wind power plant, wherein laid in the product is a conductor which upon flexing and/or a change in length of the product experiences a change in length, wherein a signal, preferably a pulse signal, is generated by means of a signal generator and fed into the line

at the first input thereof, wherein arranged at the second end of the line is a signal receiver which upon reception of the signal from the signal generator causes same to emit a further signal, and that there is provided a device by means of which the number of emitted signals within a predetermined unit of time is measured and the flexing and/or increase in length of the product can be ascertained from the comparison of the measured number of emitted signals per predetermined unit of time with a stored table.

15. (Currently Amended) A process and apparatus for measuring the flexing or change in length of a product, ~~for example~~ namely a rotor blade or a pylon of a wind power plant, wherein laid in the product is a conductor which upon flexing and/or a change in length of the product experiences a change in length, wherein a signal, preferably a pulse signal, is generated by means of a signal generator and fed into the line at the first input thereof, wherein however arranged at the second end of the line is a reflector which reflects the signal from the signal generator to the first end of the line where it is received at the input by a signal receiver and which then triggers the above-described triggering of a further signal by the signal generator, wherein the signal generator and the signal receiver are connected together and the time between signal reception and triggering of a consequential signal by the signal generator is always substantially constant.

16. (Currently Amended) A process and apparatus as set forth in claim 14 ~~or claim 15~~ wherein the line is an electrical line or an optical ~~fibre~~fiber cable.

17. (Currently Amended) A process and apparatus as set forth in ~~one of the preceding~~ claims 15 wherein the conductor is connected in positively locking relationship to the product at least at its ends.

18. (Currently Amended) A process and apparatus as set forth in ~~one of the preceding~~ claims 15 wherein the conductor is connected to the product in positively locking relationship at least in a given region and upon flexing or elongation of the product the conductor is stretched only in said predetermined region.

19. (Currently Amended) A wind power plant comprising at least one rotor blade ~~(10)~~ as set forth in ~~one of the preceding~~ claims 15.

20. (New) An apparatus for measuring distortion of a blade, comprising:

a blade comprising a first end and a blade tip, wherein the first end and the blade tip are located at opposite ends of the length of the blade;

a conductor extending longitudinally from adjacent the first end of the blade a predetermined distance along the length of the blade toward the blade tip, the conductor being coupled to the blade structure; and

a detector coupled to the conductor and configured to detect changes in the length of the conductor.

21. (New) The apparatus of claim 20, wherein the conductor extends a predetermined distance along the length of the blade toward the blade tip and then returns to adjacent the first end of the blade.

22. (New) The apparatus of claim 20, wherein the blade comprises a rotor blade of a wind power plant, and the first end of the blade is connected to a hub.

23. (New) The apparatus of claim 20, wherein the conductor helically surrounds the blade, extending longitudinally from the first end of the blade toward the blade tip.

24. (New) The apparatus of claim 20, wherein the conductor is selected from the group consisting of an electrical conductor, an acoustic conductor, and an optical conductor.

25. (New) The apparatus of claim 24, wherein the electrical conductor contains a predetermined percentage of aluminum.

26. (New) The apparatus of claim 20, further comprising additional conductors extending from adjacent the first end toward the blade tip.

27. (New) The apparatus of claim 26, wherein at least one of the additional conductors extends along a first face of the blade and at least one of the additional conductors extends along a second face of the blade, the second face being opposite the first face.

28. (New) The apparatus of claim 26, wherein the conductor and the additional conductors are electrical conductors that are galvanically connected at a plurality of predetermined lengths to the conductor, wherein each of the predetermined lengths is shorter than the conductor.

29. (New) The apparatus of claim 26, wherein the additional conductors extend a plurality of different lengths, each length being shorter than the length of the blade.

30. (New) The apparatus of claim 26, wherein the conductor is releasably coupled to the blade to facilitate replacement of the conductor.

31. (New) The apparatus of claim 20, further comprising a second conductor used for calibration extending longitudinally from the first end of the blade a predetermined distance along the length of the blade toward the blade tip, wherein the second conductor is coupled to the blade such a distortion of the blade does not alter the length of the second conductor.